CLAIMS

1. (Previously Presented) A process for the hydrogenation and/or dehalogenation of polyalphaolefin to provide a substantially hydrogenated and/or substantially dehalogenated polyalphaolefin homo- or copolymer, the process comprising hydrogenating and/or dehalogenating at least one polymerized α-olefin under catalytic hydrogenation and/or dehalogenation conditions in the presence of hydrogen and a catalytically effective amount of a substantially amorphous hydrogenation/dehalogenation catalyst comprising a metal component on an inorganic material based support wherein the metal component is present in an amount of about 0.01 to about 5 weight percent, based on the total weight of the catalyst.

2. (Previously Presented) The process of Claim 1 wherein the α-olefin of the polyalphaolefin contains from 2 to about 20 carbon atoms.

3. (Previously Presented) The process of Claim 1 wherein the α-olefin of the polyalphaolefin contains from about 6 to about 12 carbon atoms.

4. (Previously Presented) The process of Claim 1 wherein the α-olefin of the polyalphaolefin is 1-decene.

5. (Original) The process of Claim 1 wherein the metal component of the catalyst is one or more Group VIII metals of the Periodic Table selected from the group consisting of Fe, Co, Ni, Ru, Rh, Pd, Os, Ir, Pt, and salts thereof.

6. (Original) The process of Claim 1 wherein the inorganic support is a material selected from the group consisting of silica, alumina and silica-alumina.

7. (Original) The process of Claim 1 wherein the amorphous hydrogenation/dehalogenation catalyst is palladium on a silica-alumina support.

8-20. (Canceled)

21. (Previously Presented) The process of Claim 1 wherein the metal component is present in an amount of about 0.05 to about 3 weight percent, based on the total weight of the catalyst.

22. (Previously Presented) The process of Claim 1 wherein the metal component is present in an amount of about 1.5 to about 2.5 weight percent, based on the total weight of the catalyst.

23. (Previously Presented) The process of Claim 1 wherein the hydrogenation/dehalogenation catalyst has a particle size distribution having particles greater than about 250 microns and particles less than about 75 microns.